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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,497	06/29/2004	Egon Hubel	B-7193	4529

7590 04/24/2007
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EXAMINER

NICHOLSON III, LESLIE AUGUST

ART UNIT	PAPER NUMBER
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3651

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/500,497	HUBEL, EGON	
	Examiner	Art Unit	
	Leslie A. Nicholson III	3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 February 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4,6-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4,6-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/6/2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-4,6-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4,6-11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudreau USP 5,622,363 in view of Pender USP 5,501,735.

Beaudreau discloses a device for transporting printed circuit boards or foils (C1/L9-16) comprising:

- at least one pair of rollers (118,120) that are disposed on a respective side of the plane of transportation and are facing each other, said rollers having at least one elevation (144,146) encircling said rollers, wherein said at least one pair of rollers includes at least one first roller located on one side of the plane of transportation and at least one second roller located on the other side of the plane of transportation (fig.3,4)
- transport drives associated with said rollers, wherein the elevations on the first roller of a pair of rollers located on one side of the plane of transportation are staggered relative to the elevations provided on the second roller of the pair of rollers on the other side of the plane of transportation (fig.3)
- wherein said elevations are located along the plane of transportation in the region of the conveying path (fig.3,4)
- wherein the elevations annularly or helically encircle the rollers (fig.3,4)
- wherein several axially spaced apart elevations are provided on the at least one roller (fig.2)
- wherein the spacing between the elevations annularly encircling the rollers or the spacings between respective turns of the elevations helically encircling the rollers are at least 10% greater than the width of the elevations (fig.1,2)
- wherein the elevations have rounded front sides (fig.3)

- wherein the rollers are made from at least one material selected from the group comprising metal, plastic material and ceramics (C5/L24-29)
- wherein the rollers provided with the elevations are configured to be formed by axles with rings secured thereon (fig.2)
- spaced apart bearings (fig.2)

Beaudreau does not expressly disclose bordering elevations at the end of the rollers annularly encircling the respective one of the rollers and facing each other and are located outside of a useful area of a conveying path in the processing line.

Pender teaches the use of bordering elevations (70,71,72,28) at the end of the rollers annularly encircling the respective one of the rollers and facing each other and are located outside of a useful area of a conveying path in the processing line (fig.2) for the purpose of simplifying the drive for the roller pair (C4/L45-65).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ bordering elevations at the end of the rollers annularly encircling the respective one of the rollers and facing each other and are located outside of a useful area of a conveying path in the processing line, as taught by Pender, in the device (or method) of Beaudreau, for the purpose of simplifying the drive for the roller pair.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie A. Nicholson III whose telephone number is 571-272-5487. The examiner can normally be reached on M-F, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

L.N.
2/27/2007


GENE C. CRAWFORD
SUPERVISORY PATENT EXAMINER